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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/800,917	03/05/2001	Hossein Izadpanah	HRL080	5536

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EXAMINER	
SEDIGHIAN, REZA	
ART UNIT	**PAPER NUMBER**
2633	9

DATE MAILED: 07/07/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/800,917	IZADPANAH ET AL.	
	Examiner	Art Unit	
	M. R. Sedighian	2633	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *06 April 2004* .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-28* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-28* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other:

1. This communication is responsive to applicant's response of 4/6/04 in the application of Izadpanah et al. for "Hybrid RF and optical wireless communication link and network structure incorporating it therein" filed 3/5/01. Claims 1-28 are now pending.

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sato (US Patent No: 4,904,993) in view of Nakamura (US Patent No: 6,583,908), or Taglione et al. (US Patent No: 5,966,225).

Regarding claim 1, Sato teaches a node (10, fig. 1) incorporating hybrid radio frequency and optical wireless communication links (col. 2, lines 25-39), the node comprising: an IR portion for transmitting data (14, fig. 1); a RF portion for transmitting data (12, fig. 1); a data receiver (16, fig. 1) for receiving data from a data source (15, fig. 1); and a controller (17, fig. 1) configured to receive data from a data source and connected with the IR portion and the RF portion to allocate portions of the data to be transmitted through the IR portion and the RF portion (col. 2, lines 30-39, col. 3, lines 16-19). Sato differs from the claimed invention in that Sato does not specifically disclose the IR portion is a laser. Nakamura teaches a computer (1, figs. 1a, 2) with infrared transmission-reception units (6a, 11, fig. 2) to communicate with external devices (col. 3, lines 15-20). Nakamura further teaches the infrared transmission-

reception units (6a, 11, fig. 2) can use laser light (col. 5, lines 9-16). Likewise, Taglione teaches an IR transceiver (100, fig. 3 and col. 3, lines 47-56), wherein the IR emitter (108, fig. 3) can be a laser diode (col. 3, lines 53-54). Therefore, it would have been obvious to a person of ordinary skill in the art at the time of invention to incorporate a laser transmitter, as it is taught by Nakamura or Taglione, for the IR transmission portion in the transmission system of Sato in order to generate a uniform, narrow, and relatively high power output light.

4. Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kavehrad (Canadian Electrical & Computer Engineering Journal, Vol. 16, No: 1, PP. 13-18).

Regarding claims 1, Kavehrad teaches a node (fig. 1) incorporating hybrid radio frequency and optical wireless communication links (page 14, first column), the node comprising: a laser portion (laser in fig. 1) for transmitting data (IF_1, IF_2, ..., fig. 1); a RF portion for transmitting data (page 14, first column, and the RF portion in fig. 1); a data receiver for receiving data from a data source (note that 12 IF channels are received and frequency division multiplexed, as it is shown in fig. 1). Kavehrad differs from the claimed invention in that Kavehrad does not specifically disclose a controller configured to receive data from a data source and connected with the laser portion and the RF portion to allocate portions of the data to be transmitted through the laser portion and the RF portion. Kavehrad teaches a hybrid radio architecture (fig. 1) which consists of a number of digital point to point microwave radio channels (IF_1, IF_2, ..., fig. 1) with a parallel atmospheric optical link protecting all of them against frequency selective fading and RF interference (see abstract, introduction, and page 14 first column). Kavehrad further teaches the radio channels need to be operational when the

optical channel is down due to weather related problems (page 16, second column). It would have been obvious that such system incorporates a control or a switch to change the optical link to RF link or vise versa. Therefore, it would have been obvious to an artisan at the time of invention that a hybrid data transmission system such as the one of Kavehrad can control or route the transmission of data signals over radio link or optical link, in order to prevent against fading and interference.

5. Claims 2-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kavehrad (Canadian Electrical & Computer Engineering Journal, Vol. 16, No: 1, PP. 13-18) in view of Chen (US Patent No: 5,946,120), or Zavrel (US Patent No: 5,585,953).

Regarding claims 2-4, Kavehrad teaches a hybrid radio architecture for transmitting IF signals over radio link or optical link (fig. 1). Kavehrad teaches the radio channels need to be operational when the optical channel is down due to weather related problems (page 16, second column). Kavehrad differs from the claimed invention in that Kavehrad does not specifically teach a controller that can be configured as a binary switch for transmitting data signals through either the laser portion or the RF portion based on environmental information. However, it would have been obvious that a system such as the one of Kavehrad incorporates a controller or a switch in order to change the optical link to RF link, or vise versa. Furthermore, Chen teaches a control unit (20, fig. 1) that can control the transmission of data signals (col. 3, lines 55-64, col. 4, lines 22-26) by a RF transmitter (16, fig. 1) or an IR transmitter (18, fig. 1). Likewise, Zavrel teaches a control unit (16, fig. 1) and a switch (18, 20, fig. 1) for transmitting data signals (col. 2, lines 8-11) by a RF transmitter (12, fig. 1) or an IR transmitter (24, fig. 1). Therefore, it would

have been obvious to an artisan at the time of invention to incorporate a control unit such as the one of Chen or Zavrel for the hybrid data transmission system of Kavehrad to control and switch the routing of data signals over radio link or optical link in order to prevent against fading and interference.

6. Claims 1-2, 5, and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Michael Watson (WO 00/08783) in view of Nakamura (US Patent No: 6,583,908), or Taglione et al. (US Patent No: 5,966,225).

Regarding claims 1, Watson teaches a node (46, fig. 5) incorporating hybrid radio frequency and optical wireless communication links (page 5, lines 16-18), the node comprising: an IR portion for transmitting data (18, 20, fig. 5); at least one RF portion for transmitting data (28, 30, fig. 5); a data receiver (14, 54, fig. 5) for receiving data from a data source (36, fig. 5); and a controller (14, fig. 5) configured to receive data from a data source and connected with the IR portion (18, fig. 5) and the RF portion (28, fig. 5) to allocate portions of the data to be transmitted through the IR portion and the RF portion (page 9, lines 15-23, page 10, lines 1-6). Watson differs from the claimed invention in that Watson does not specifically disclose the IR portion is a laser. Nakamura teaches a computer (1, figs. 1a, 2) with infrared transmission-reception units (6a, 11, fig. 2) to communicate with external devices (col. 3, lines 15-20). Nakamura further teaches the infrared transmission-reception units (6a, 11, fig. 2) can use laser light (col. 5, lines 9-16). Likewise, Taglione teaches an IR transceiver (100, fig. 3 and col. 3, lines 47-56), wherein the IR emitter (108, fig. 3) can be a laser diode (col. 3, lines 53-54). Therefore, it would have been obvious to a person of ordinary skill in the art at the time of

invention to incorporate a laser transmitter, as it is taught by Nakamura or Taglione, for the IR transmission portion in the transmission system of Watson in order to generate a uniform, narrow, and relatively high power output light.

Regarding claim 2, Watson teaches a binary switch (52, fig. 5) such that the data is transmitted exclusively through either one of the IR portion and the RF portion (page 9, line 23, page 10, lines 1-2).

Regarding claim 5, Watson teaches the IR portion is configured to both transmit and receive (16, fig. 1A) and the RF portion is configured to both transmit and receive (26, fig. 1B).

Regarding claim 8, Watson teaches the controller is configured as a binary switch (page 10, lines 1-3 and 52, 54, fig. 5).

7. Claims 1-2, 5-6, 8, 10, and 12-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Zavrel (US Patent No: 5,585,953) in view of Nakamura (US Patent No: 6,583,908), or Taglione et al. (US Patent No: 5,966,225).

Regarding claims 1, Zavrel teaches a node (10, fig. 1) incorporating hybrid radio frequency and optical wireless communication links (col. 1, lines 50-55), the node comprising: an IR portion for transmitting data (24, fig. 1); a RF portion for transmitting data (12, fig. 1); a data receiver (14, 26, fig. 1) for receiving data from a data source (col. 1, lines 65-67, col. 2, lines 5-8); and a controller (16, fig. 1) configured to receive data from a data source (col. 1, lines 64-65) and connected with the IR portion (24, fig. 1) and the RF portion (12, fig. 1) to allocate portions of the data to be transmitted through the IR portion and the RF portion (col. 2, lines 1-10). Zavrel differs from the claimed invention in that Zavrel does not specifically disclose the IR

portion is a laser. Nakamura teaches a computer (1, figs. 1a, 2) with infrared transmission-reception units (6a, 11, fig. 2) to communicate with external devices (col. 3, lines 15-20). Nakamura further teaches the infrared transmission-reception units (6a, 11, fig. 2) can use laser light (col. 5, lines 9-16). Likewise, Taglione teaches an IR transceiver (100, fig. 3 and col. 3, lines 47-56), wherein the IR emitter (108, fig. 3) can be a laser diode (col. 3, lines 53-54). Therefore, it would have been obvious to a person of ordinary skill in the art at the time of invention to incorporate a laser transmitter, as it is taught by Nakamura or Taglione, for the IR transmission portion in the transmission system of Zavrel in order to generate a uniform, narrow, and relatively high power output light.

Regarding claim 2, Zavrel teaches the controller (16, fig. 1) is configured as a binary switch (18, 20, fig. 1) such that the data is transmitted exclusively through either one of the laser portion and the radio frequency portion (col. 2, lines 7-11).

Regarding claim 5, Zavrel teaches the IR portion is configured to both transmit and receive (col. 2, lines 1-2) and the RF portion is configured to both transmit and receive (col. 1, lines 21-23).

Regarding claim 6, Zavrel teaches transmitting in multiple channels (col. 1, lines 62-65, col. 4, lines 1-10)

Regarding claim 8, Zavrel teaches the controller is configured as a binary switch (col. 1, line 63, col. 2, lines 8-11).

Regarding claims 5 and 16, Zavrel teaches the IR portion and the RF portion are configured to both transmit and receive and to provide a transmission of multiple channels (col. 1, lines 62-66, col. 2, lines 9-10, col. 4, lines 3-9).

Regarding claims 10, 12, 14, Zavrel teaches the controller is configured to monitor the transmit and receive strengths and the data to be transmitted are adjusted by the controller based on their transmit and receive strengths (col. 1, lines 64-67, col. 4, lines 10-13).

Regarding claim 13, Zavrel teaches transmission of multiple channels (col. 1, lines 25-26, col. 3, lines 20-30).

Regarding claim 15, Zavrel teaches the IR portion and the RF portion are configured to transmit and receive in tandem (col. 2, lines 1-10).

8. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Zavrel (US Patent No: 5,585,953) in view of Nakamura (US Patent No: 6,583,908), or Taglione et al. (US Patent No: 5,966,225) and in further view of Vowell et al. (US Patent No: 5,999,295), or Shibuya (US patent No: 6,509,991).

Regarding claim 11, the modified optical transmission system of Zavrel, Nakamura, or Taglione differs from the claimed invention in that Zavrel, Nakamura, or Taglione do not disclose the controller includes a plurality of latches and a logic device to further provide adjustments levels. Vowell teaches an IR transceiver module that includes an IR transmitter and receiver and a communication logic that is coupled to the transceiver to control communication (col. 3, lines 5-8), wherein the communication logic includes state machines, buffers, latches, registers, memories, etc (col. 3, lines 8-10). Likewise, Shibuya teaches a transmit and receive control unit (10, fig. 6) that is comprised of latches (59, 60, 61, fig. 6) and logic devices (62, 63, fig. 6). Therefore, it would have been obvious to a person of ordinary skill in the art at time of

invention that a controller such as the one of Zavrel can include latches and logic devices, as it is taught by Vowell or Shibuya, to provide monitoring and control functions.

9. Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Zavrel (US Patent No: 5,585,953) in view of Nakamura (US Patent No: 6,583,908), or Taglione et al. (US Patent No: 5,966,225) and in further view of Driessen (US Patent No: 5,936,578).

Regarding claim 17, the modified optical transmission system of Zavrel, Nakamura, or Taglione differs from the claimed invention in that Zavrel, Nakamura, or Taglione do not disclose an optical reflector to deflect transmission from the IR portion to work around the fixed objects. Driessen teaches an optical transmission system (fig. 6), wherein an optical reflector is used to deflect transmission from a laser portion to work around fixed objects (col. 6, lines 1-7). As it is taught by Driessen, it would have been obvious to an artisan at the time of invention to incorporate an optical reflector, when transmitting optical signals over a free space, to provide a deflection for the transmitted light around the fixed objects to continue the signal transmission without interruption.

10. Claims 1-2, 5-6, 8, 10, 13, 15-16, 18-19 and 22-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Vollert (German Patent No: DE 44 33 896 C1) in view of Nakamura (US Patent No: 6,583,908), or Taglione et al. (US Patent No: 5,966,225).

Regarding claims 1 and 18, Vollert teaches a network (K, fig. 1) incorporating hybrid radio frequency and optical wireless communication links (translation on page 5, second paragraph), the network comprising a plurality of nodes (KE, KEE, UE, fig. 1) each node

including an IR portion (SE-IN, fig. 1), a RF portion (SE-FU, fig. 1), a data receiver (SP, fig. 1) and a controller (PST, fig. 1) to receive the data and to allocate portions of data to be transmitted to the IR portion and to the RF portion (translation on page 5, third paragraph). Vollert differs from the claimed invention in that Vollert does not specifically disclose the IR portion is a laser. Nakamura teaches a computer (1, figs. 1a, 2) with infrared transmission-reception units (6a, 11, fig. 2) to communicate with external devices (col. 3, lines 15-20). Nakamura further teaches the infrared transmission-reception units (6a, 11, fig. 2) can use laser light (col. 5, lines 9-16). Likewise, Taglione teaches an IR transceiver (100, fig. 3 and col. 3, lines 47-56), wherein the IR emitter (108, fig. 3) can be a laser diode (col. 3, lines 53-54). Therefore, it would have been obvious to a person of ordinary skill in the art at the time of invention to incorporate a laser transmitter, as it is taught by Nakamura or Taglione, for the IR transmission portion in the data transmission system of Vollert in order to generate a uniform, narrow, and relatively high power output light.

Regarding claims 2 and 19, Vollert teaches a switch such that the data is transmitted through either the IR portion or RF portion (translation page 5, third paragraph and page 6, lines 1-18).

Regarding claim 22, Vollert teaches monitoring of the transmit and receive strengths and transmitting data based on the transmit and receive strength (translation page 6, lines 1-18).

Regarding claim 23, Vollert teaches the IR portion and RF portion transmit in multiple channels (translation page 5, third paragraph and SP, fig. 1).

Regarding claim 24, Vollert teaches the IR portion and RF portion are configured to transmit and receive in tandem (translation page 8, last paragraph).

11. Claims 3-10, 15-16, and 20-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Vollert (German Patent No: DE 44 33 896 C1) in view of Nakamura (US Patent No: 6,583,908), or Taglione et al. (US Patent No: 5,966,225) and in further view of Kavehrad (Canadian Electrical & Computer Engineering Journal, Vol. 16, No: 1, PP. 13-18).

Regarding claims 3-4 and 20-21, the modified wireless data transmission system of Vollert, Nakamura, and Taglione teaches the transmission and switching of data signals over radio frequency link or optical link, as discussed above in claims 1 and 18. Vollert further teaches a bi-directional transmission and reception of information over radio links (FUS, fig. 1), or optical links (IUS, fig. 1) based on verification of the transmission quality on each path (translation page 5, last paragraph and page 6, first paragraph) by a controller (PST, fig. 1) and switching (translation page 6, lines 10-12) from one link to the other based on the evaluation and measurement results (translation page 6, lines 3-18). The modified wireless data transmission system of Vollert, Nakamura, and Taglione differs from the claimed invention in that Vollert, Nakamura, and Taglione do not teach a controller to receive environmental information and to transmit the data signals through the laser portion or the RF portion based on environmental information. Kavehrad teaches a hybrid radio architecture for transmission of data signals (fig. 1), wherein radio channels can be transmitted when the optical channel is down due to weather related problems (page 16, second column). It would have been obvious to a person of ordinary skill in the art that a wireless transmission system with controllers and switches such as the one of Vollert can switch an optical link to a RF link, or vise versa, based on verification or measurement results, or based on weather related information, as it is taught by Kavehrad in order to provide a protection path or an auxiliary path for the transmission of information signals.

Regarding claim 5, Vollert teaches the IR portion is configured to both transmit and receive (page 5, last paragraph and IUS, fig. 1) and the RF portion is configured to both transmit and receive (FUS, fig. 1).

Regarding claim 6, Vollert teaches the IR portion and the RF portion are configured to transmit in multiple channels (page 5, lines 1-6).

Regarding claims 7 and 9, it requires similar limitations as recited above for claims 3-4.

Regarding claim 8, Vollert teaches the controller is configured as a binary switch (page 6, lines 10-12).

Regarding claims 10, Vollert teaches monitoring the transmit and receive strengths (page 6, lines 1-7).

Regarding claims 15, Vollert teaches the IR portion and the RF portion are configured to transmit and receive in tandem (page 8, last two paragraphs).

Regarding claims 16, Vollert teaches the IR portion and the RF portion are configured to transmit in multiple channels (page 5, lines 1-6).

12. Claims 11-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Vollert (German Patent No: DE 44 33 896 C1) in view of Nakamura (US Patent No: 6,583,908), or Taglione et al. (US Patent No: 5,966,225) and in view of Kavehrad (Canadian Electrical & Computer Engineering Journal, Vol. 16, No: 1, PP. 13-18) and in further view of Vowell et al. (US Patent No: 5,999,295), or Shibuya (US patent No: 6,509,991).

Regarding claim 11, the modified optical transmission system of Vollert, Nakamura, or Taglione, and Kavehrad differs from the claimed invention in that Vollert, Nakamura, or

Taglione, and Kavehrad do not disclose the controller includes a plurality of latches and a logic device to further provide adjustments levels. Vowell teaches an IR transceiver module that includes an IR transmitter and receiver and a communication logic that is coupled to the transceiver to control communication (col. 3, lines 5-8), wherein the communication logic includes state machines, buffers, latches, registers, memories, etc (col. 3, lines 8-10). Likewise, Shibuya teaches a transmit and receive control unit (10, fig. 6) that is comprised of latches (59, 60, 61, fig. 6) and logic devices (62, 63, fig. 6). Therefore, it would have been obvious to a person of ordinary skill in the art at time of invention that a controller such as the one of Vollert can include latches and logic devices, as it is taught by Vowell or Shibuya, to provide monitoring and control functions.

Regarding claim 12, Vollert teaches monitoring the transmit and receive strengths (page 6, lines 1-7).

Regarding claims 13, Vollert teaches the IR portion and the RF portion are configured to transmit in multiple channels (page 5, lines 1-6).

Regarding claim 14, Vollert teaches the controller monitors the transmit and receive strengths (page 6, lines 1-7).

13. Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Vollert (German Patent No: DE 44 33 896 C1) in view of Nakamura (US Patent No: 6,583,908), or Taglione et al. (US Patent No: 5,966,225) and in view of Kavehrad (Canadian Electrical & Computer Engineering Journal, Vol. 16, No: 1, PP. 13-18) and in further view of Driessen (US Patent No: 5,936,578).

Regarding claim 17, the modified optical transmission system of Vollert, Nakamura, or Taglione and Kavehrad differs from the claimed invention in that Vollert, Nakamura, or Taglione, and Kavehrad do not disclose an optical reflector to deflect transmission from the IR portion to work around the fixed objects. Driessen teaches an optical transmission system (fig. 6), wherein an optical reflector is used to deflect transmission from a laser portion to work around fixed objects (col. 6, lines 1-7). As it is taught by Driessen, it would have been obvious to an artisan at the time of invention to incorporate an optical reflector in the modified data transmission system of Vollert, Nakamura, or Taglione, and Kavehrad, when transmitting data signals over a free space, to provide a deflection for the transmitted light around the fixed objects to continue the signal transmission without interruption.

14. Claims 25-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Vollert (German Patent No: DE 44 33 896 C1) in view of Nakamura (US Patent No: 6,583,908), or Taglione et al. (US Patent No: 5,966,225) and in further view of Medved et al. (US Patent No: 5,818,619), or Bloom (US Patent No: 6,323,980).

Regarding claims 25-28, Vollert teaches a plurality of communication terminals KE, KEE, and UE, and a communication device K, as it is shown in fig. 1. The modified data transmission system of Vollert, Nakamura, or Taglione differs from the claimed invention in that Vollert, Nakamura, or Taglione do not disclose a portion of the network is configured with a ring topology, or a SONET ring. However, it would have been obvious to a person of ordinary skill in the art that a wireless data transmission system such as the one of Vollert can be incorporated to a ring network to provide and share the information in a network. Furthermore, Medved teaches

wireless communication systems (80, 82, 84, fig. 5) can be applicable to any type of network such as ring network (col. 1, lines 35-40). Bloom teaches optical transceivers (10, fig. 2) and RF transceiver (13, fig. 2) can be used in a network with a SONET format (col. 5, lines 30-45). Therefore, it would have been obvious to an artisan at the time of invention to incorporate a wireless data transmission system such as the one of Vollert in a ring network as it is taught by Medved, or in a SONET ring as it is taught by Bloom, in order to provide and share information between other wireless devices on a network.

15. Applicant's arguments with respect to claims 1-28 have been considered but are moot in view of the new ground(s) of rejection.

16. Any inquiry concerning this communication or earlier communications from the examiner should be directed to M. R. Sedighian whose telephone number is (703) 308-9063. The examiner can normally be reached on M-F (from 9 AM to 5 PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jason Chan can be reached on (703) 305-4729. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-4700.

M. R. Sedighian

M.R. SEDIGHIAN
Primary Examiner
Art Unit: 2633